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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,935	11/24/2003	Hau T. Pho	7784-000671	5256
27572	7590	01/12/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			SEVER, ANDREW T	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			2851	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,935

Applicant(s)

PHO ET AL.

Examiner

Andrew T Sever

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-24, 30 and 31 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6, 25, 27-29 and 32 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5, 7 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/2003, 5/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The reference JP 10253760 is only being considered in as much as is present in its English abstract, since no copy of the actual patent document is present in the file.

Claim Objections

2. Claim 5 is objected to because of the following informalities: It should be dependent on claim 2 or 3. Appropriate correction is required.

Claim 5 includes the limitation said detector, there is no "said detector" in claim 1, rather it is introduced in claim 2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02-3556 to Kawasaki (as translated by Yanming Luo on 12/29/2004 page numbers have been written in by the examiner to ease referencing) in view of Markham (US 4,023,151.)

Kawasaki teaches in figure 1, a system for projecting information content onto a seat (1, specifically the seat back 2) located within a predefined area of a structure (in this case a train or alternatively an airplane see the subsection of the detailed description of the invention labeled outline of the essentials (translation pages 6 and 7)), the system comprising:

A projector subsystem located in front of said seat for projecting said information content onto said seat, said projector subsystem including:

A projector (8) for projecting an optical signal onto said seat (1),

Said optical signal containing said information content.

Kawasaki does not teach a sensor system located adjacent a door for detecting when the door is opened and Kawasaki does not teach a sensor that controls the projector(s) in accordance to a signal from the sensor.

Markham teaches in figure 1 a door (10), a sensor (13) connected to said door and a media device (15), which is controlled by the sensor. Markham teaches in column 3 lines 36-54 that upon opening the door the media device is activated to play a reminder. Markham teaches in column 4 lines 57-63 that the media device can alternatively comprise of a projection device and in column 5 lines 24-28 that such a device can be used for such purposes as advertising, instructions to people moving from one region to another, and security purposes. Given that mass transit vehicles such as airplanes and trains are ideal environments for advertisement and also given that as passengers board there is a need to convey both security and safety messages (such as “put on your seat belt” or “remain seated until told otherwise”), such a system would be useful coupled with the projectors taught by Kawasaki. Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to control the projectors of Kawasaki, which are mounted in the seats of a predefined area by a sensor, which detects when a door of that area is open as is taught by Markham.

With regards to applicant's claim 4:

Kawasaki teaches that the projector is a liquid crystal display type projector (see page 13 of the translation).

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With regards to applicant's claim 6:

Markham teaches in column 3 line 66 through column 4 line 4 a push-button switch (19) is provided to prevent actuation of the reminder when a user is not in need of a reminder. This would be useful in the mass transit vehicle of Kawasaki when for example only maintenance people are boarding or exiting, or other occasions when the door is open and passengers are not in need of a security/safety reminder. Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the manual control for enabling/disabling the sensor system taught by Markham in the projection system of Kawasaki as there are times with the reminder is not needed.

5. Claims 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02-3556 to Kawasaki (as translated by Yanming Luo on 12/29/2004 page numbers have been written in by the examiner to ease referencing) in view of Jerome (US 6,177,887.)

Kawasaki teaches a method of aiding an individual in a predefined area, comprising:

Disposing a projector system adjacent each one of the structures. (See figure 1.)

Kawasaki does not specifically teach configuring each projector system to generate a unique identifying message in the form of an optical signal directed at its associated structure.

Jerome teaches a display and associated computer system in the backs of passenger's seats in a multi-passenger vehicle. Jerome teaches one use for such a system in column 7 line 60 through column 8 line 14 is for the purposes of playing interactive games with other passengers. During the course of playing the game, the display shows the passengers seat numbers (along with those of other passengers wishing to play the game, so that "two passengers who otherwise would not have any knowledge of each other have the opportunity to 'meet' via the system for purposes of entertaining each other and playing a mutually selected game.") Given that many multi-passenger vehicle's are used for long trips (for example trains and planes often take trips that do not stop for several hours) and given that boredom is common in such long trips, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the entertainment/interactive system which displays identifying messages on each passengers display/viewing area in the display system taught by Kawasaki which teaches a display comprising of a projector projecting onto a seat back (see the above rejection.)

With regards to applicant's claim 32:

Kawasaki shows in figure 5 that the projector and screen systems are all part of the fold down set tray. (The screen is suspended down from the bottom of the projector (as well as the actual table.))

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6. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki in view of Jerome as applied to claims 25 and 32 above, and further in view of Markham (US 4,023,151.)

As described in more detail above, Kawasaki in view of Jerome teaches a method of identifying a particular structure in a predefined area by projecting a unique optical identifying message directly onto it. Kawasaki in view of Jerome does not teach that the projectors are turned on when a first condition occurs, such as opening a door (as is claimed in applicant's claim 28.)

Markham teaches in figure 1 a door (10), a sensor (13) connected to said door and a media device (15), which is controlled by the sensor. Markham teaches in column 3 lines 36-54 that upon opening the door the media device is activated to play a reminder. Markham teaches in column 4 lines 57-63 that the media device can alternatively comprise of a projection device and in column 5 lines 24-28 that such a device can be used for purposes such as advertising, instructions to people moving from one region to another, and security purposes. Given that mass transit vehicles such as airplanes and trains are ideal environments for advertisements and also given that as passengers board there is a need to convey both security and safety messages (such as "put on your seat belt" or "remain seated until told otherwise"), such a system would be useful coupled with the projectors taught by Kawasaki. Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to control the projectors of

Kawasaki, which are mounted in the seats of a predefined area by a sensor, which detects when a door of the area is open as is taught by Markham.

Allowable Subject Matter

7. Claims 8-24, 30, and 31 are allowed.
8. Claims 2, 3, 7, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter:
Claims 8-24, 30, 31, 2, 3, and 26 all claim either themselves or through their dependency on a claim that claims that among the other things that Kawasaki in view of Markham as well as in view of either Jerome or Jerome in view of Markham teaches, also claims a detection system for detecting if an individual is present in the seat and turning off the projector if an individual is present in the seat that the image (identifying information) is being projected for. Such systems for detecting the presence of a person near or on a seat are well known for example (US 5,926,867 to Buchanan) teaches in column 3 lines 53-62 a sensor which activates a projector when a person nears a seat (toilette). However, given that the projector/display systems of Kawasaki and Jerome are both provided for in-flight/in-transit entertainment, it would not be obvious to combine them with a teaching of turning off the projector when someone is sitting in a position to view the projected

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image (it would destroy the purpose of both those publications.) Accordingly claims 8-24, 30, and 31 are allowed and claims 2, 3, and 26 would be allowable if re-written in independent form including the limitations of their respective base claims. It should additionally be noted that if claim 5 were re-written to include the subject matter of claims 2 and 1, it would also be allowable or if it was re-written to be dependent on claim 2 and claim 2 re-written to be independent and include the subject matter of claim 1, claim 5 would be allowable.

Claim 7 is indicated as being allowable if re-written in independent form including the limitation of claim 1, since it claims that the display comprises a silkscreen image display. Kawasaki is an LCD display and its obvious alternatives (DMD, CRT etc.) Unlike these displays, a silk screen display is static; its image never changes, again as stated above Kawasaki as well as Jerome are directed towards entertaining passengers, and accordingly it would not be obvious to replace a display capable of producing dynamic moving image such as Kawasaki's with a display that displays only a static image as is claimed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

JP 2001-305989A to Hitachi teaches a sensor for detecting the opening of a door which controls a projector (see figures 1, 3, and 4) also see the machine translation provided by Derwent on 12/23/2004.

WO 02/14085 A2 to GRP INC, teaches a seat based projector.

US 6,481,870 to Son teaches an exit sign that includes several sensors (See for example figure 6.)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS


JUDY NGUYEN
SUPERVISORY PATENT EXAMINER